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# WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

January 6, 2011

TO: Internal File

THRU: Daron Haddock, Permit Supervisor *DEH*

FROM: James D. Smith, Environmental Scientist *DS 01/06/11*

RE: 2010 Third Quarter Water Monitoring, PacifiCorp, Trail Mountain Mine,  
C/015/0009, Task ID #3611 *#3641 GAS*

The Trail Mountain Mine is currently idle. The monitoring plan is described in Appendix A of Volume 9 of the MRP.

## 1. Were data submitted for all of the MRP required sites?

**In-mine** YES ☒ NO ☐

The mine is sealed, so other than the Oliphant portal discharge (18-1-1 or T-18), which is monitored as a spring, there is no monitoring of underground or in-mine water.

**Springs** YES ☒ NO ☐

The Oliphant portal discharge (18-1-1 or T-18) is monitored quarterly. The Permittee monitors springs 17-35-2, 17-35-1, 17-26-5, 17-25-1, 17-26-4, 17-22-1, 17-21-1, and 18-2-1 for operational parameters in July and October and for flow only in August and September.

**Streams** YES ☒ NO ☐

The Permittee monitors SW-1, SW-2 and SW-3 in Cottonwood Canyon and 18-3-1 (T-19) in Straight Canyon monthly, for flow only during the first two months of the quarter and for operational parameters during the last month of the quarter.

**UPDES** YES ☒ NO ☐

DMRs were submitted in electronic format (Adobe). There was no reported discharge from either UPDES point during the Third Quarter 2010. The mine was sealed in June 2001 and

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there has been no reported discharge at UPDES UT23728-002 (the mine-water discharge into Cottonwood Creek) since May 2001.

**Wells** YES ☒ NO ☐

Since July 2004, the water level in TM-3 has been reported as head above the casing elevation, determined from pressure measured by a gauge on the sealed wellhead (see chart below). TM-1B is monitored for operational parameters during the last month of each quarter.

**2. Were all required parameters reported for each site?**

**Springs** YES ☒ NO ☐

**Streams** YES ☒ NO ☐

**UPDES** YES ☒ NO ☐

**Wells** YES ☒ NO ☐

**3. Were any irregularities found in the data?**

Listed parameters were outside two standard deviations. An asterisk (\*) indicates this is not a parameter required by the MRP.

**Springs** YES ☒ NO ☐

17-22-1 July: D-K, D-Na, acidity\*, cation - anion balance.

18-3-1 September: field electric conductivity, D-Mg, D-K, bicarbonate as CaCO<sub>3</sub>, total hardness, TDS, total anions\*, cation - anion balance.

**Streams** YES ☒ NO ☐

SW-2 September: cation - anion balance.

**UPDES** YES ☐ NO ☒

No discharge.

**Wells** YES ☒ NO ☐

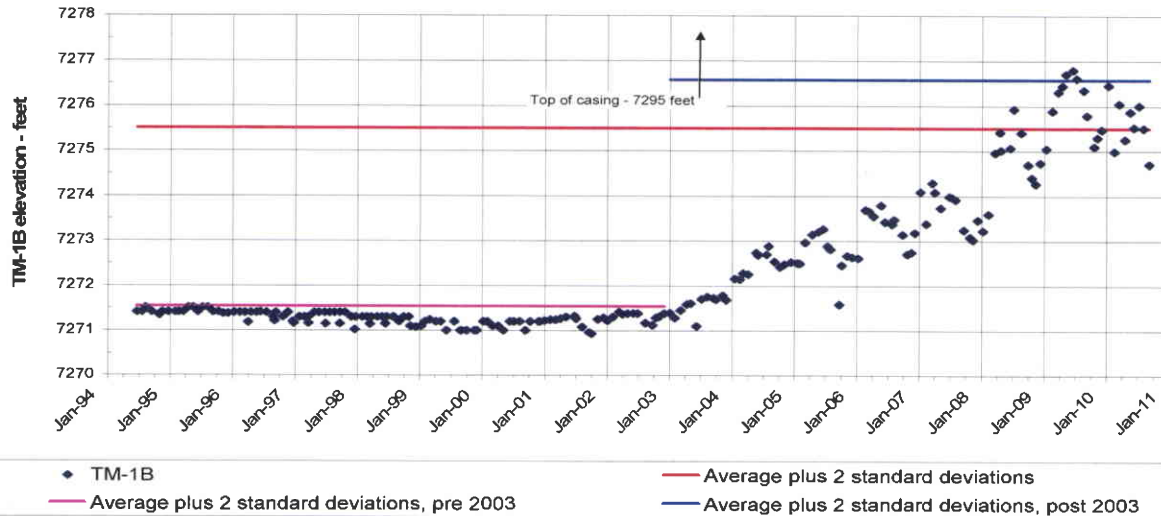
TM-1B September: bicarbonate as CaCO<sub>3</sub>.

TM-1B: depth. The head in TM-1B has been slowly rising since early 2003. The cause is

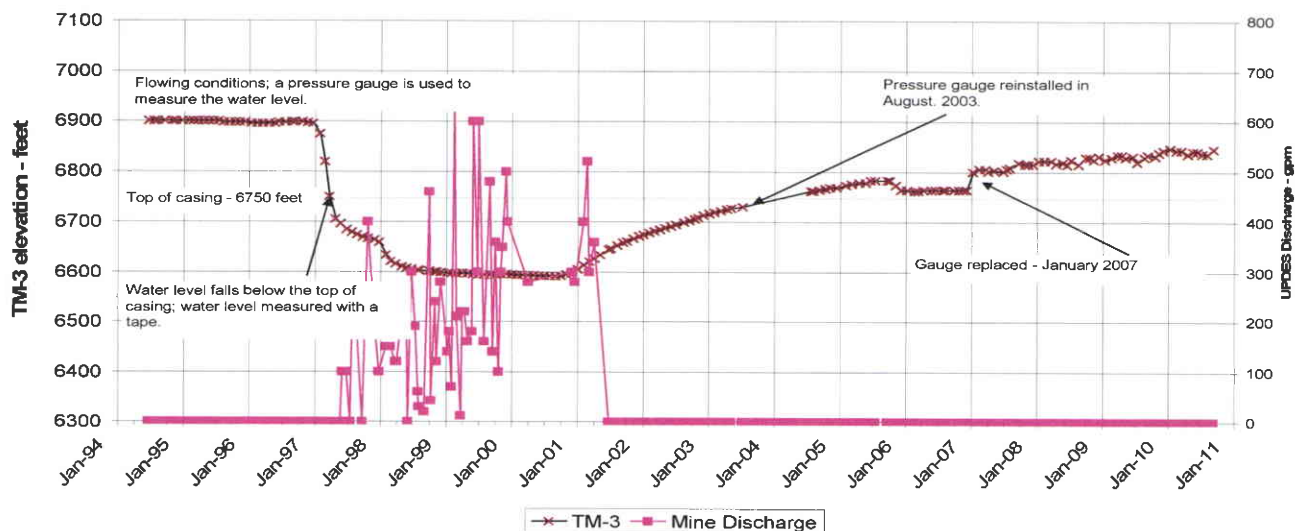
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not evident. Although highly variable from quarter to quarter, it may be declining (the elevation was highest in June 2009).

TM - 1B Water Level - Elevation



TM - 3 Water Level - Elevation



TM-3: water elevation peaked in June 2005, remained steady through October, dropped 18.5 ft in November and December 2005 and remained virtually unchanged during 2006. The pressure gauge was replaced in January 2007 and values jumped to approximately match the pre-2006 curve. During the first half of 2007,

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the curve was relatively flat, but it resumed climbing during the third quarter and has continued on an upward trend.

**4. On what date does the MRP require a five-year resampling of baseline water data.**

The next renewal will be on 02/21/15. Baseline analyses were performed in 2001 and 2006. Analyses for baseline parameters will be repeated every 5 years, i.e., the next baseline analyses will be in 2011.

**5. Based on your review, what further actions, if any, do you recommend?**

There is no further action recommended at this time.

**6. Does the Mine Operator need to submit more information to fulfill this quarter's monitoring requirements?**

YES ☐ NO ☒

**7. Follow-up from last quarter, if necessary.**

NA ☒

**8. Did the Mine Operator respond adequately to queries about missing or irregular data?**

YES ☐ NO ☐ NA ☒

There were no missing or irregular data in the Third Quarter 2010.